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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/719,040

11/21/2003

Brent J. Bollman

NSL-016

2812

27652

7590

02/22/2007

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EXAMINER

STOUFFER, KELLY M

ART UNIT

PAPER NUMBER

1762

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

02/22/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/719,040

Applicant(s)

BOLLMAN, ET AL.

Examiner

Kelly Stouffer

Art Unit

1762

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☒ Claim(s) 23-24 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application
- ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

1. Claims 1-9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites the limitation "the outermost portion" in line 3. There is insufficient antecedent basis for this limitation in the claim. Claims 8-9 are rejected as being dependant upon a rejected base claim.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-16 are rejected under 35 U.S.C. 102(b) as being anticipate by US Patent number 4293596 Furendal et al.

Regarding claim 1, Furendal et al. discloses a method for annealing an organic film, comprising exposing the organic film to a vapor of a solvent for a period of time

Art Unit: 1762

sufficient to render at least the outermost portion of the organic film insoluble in the solvent (abstract, column 8 lines 11-65, examples for solvent-only annealing).

Regarding claims 2-3, the film is a polymer film (column 2 lines 21-40).

Regarding claims 4-7, the many type of polymers that may be used in the invention are disclosed in column 6 line 47 – column 8 line 11.

Regarding claims 8-9, the possible organic solvents are disclosed in column 12 line 55 – column 15 line 15.

Regarding claim 10, Furendal et al. discloses a method for forming an organic film, comprising dipping and evaporating a polymer solution (columns 11 and 12 et seq.) that may include an organic solvent (column 4 lines 12-25, a volatile, inert fluid which one of ordinary skill in the art would realize inherently includes organic solvents) to form the organic layer, then exposing the organic layer to a vapor of a solvent for a period of time sufficient to render at least the outermost portion of the organic film insoluble in the solvent (abstract, column 8 lines 11-65, examples for solvent-only annealing).

Regarding claim 11, the film is a polymer film (column 2 lines 21-40).

Regarding claims 12-14, the many type of polymers that may be used in the invention are disclosed in column 6 line 47 – column 8 line 11.

Regarding claims 15-16, the possible organic solvents are disclosed in column 12 line 55 – column 15 line 15.

Art Unit: 1762

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 17-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Furendal et al.

Furendal et al. is described above and does not include specific organic solvents for the polymer material to make the film, just that the solvent may be an inert volatile molecule. Furendal et al. does teach inert volatile molecules for use as the second solvent in 12 line 55 – column 15 line 15 that includes chloroform (column 14 ~line 42). It would have been obvious to one of ordinary skill in the art at the time of the invention to use a small organic molecule such as chloroform, making both of the solvents the same as required in claims 17-18, or any other small organic molecule making the solvents different as required by claim 19, as Furendal et al. implicitly recognizes the inherent suitability of doing such.

4. Claims 20-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Furendal et al. in view of US Patent number 1141224 to Wawrzinick.

Furendal et al. is described above in reference to claim 10 and includes all the recitations of claims 20 and 21 except for using a second substrate. Wawrzinick teaches a similar procedure (when combined with the dipping coating method of Furendal et al.) using solvent annealing that adheres two substrates together (entire document) in order to create a device such as a raincoat (lines 100-105).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Furendal et al. to include a second substrate bonded to the other as taught by Wawrzinick in order to create a device such as a raincoat.

Regarding claim 22, Wawrzinick does not mention when the fabric is joined in relation to the solvent treatment, but it would have been obvious to one of ordinary skill

Art Unit: 1762

in the art that there are only two options - the fabric may be joined before or after the solvent treatment.

Allowable Subject Matter

5. Claims 23-24 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Wawrzinick includes much larger substrates than those claimed.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Chao and Civardi et al. show similar procedures.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kelly Stouffer whose telephone number is (571) 272-2668. The examiner can normally be reached on Monday - Thursday 7:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Meeks can be reached on (571) 272-1423. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1762

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Kelly Stouffer
Examiner
Art Unit 1762

kms



TIMOTHY MEEKS
SUPERVISORY PATENT EXAMINER